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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/709,863

06/02/2004

Otis L. Nelson JR.

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7590

12/12/2008

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EXAMINER

TOOMER, CEPHIA D

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

12/12/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/709,863	Applicant(s) NELSON ET AL.	
	Examiner Cephia D. Toomer	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 6, 2008 has been entered.
2. This Office action is in response to the amendment filed on October 6, 2008 in which claim 16 is identified as "currently amended". However, there are no amendments made to the claim.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
2. Claims 4-7 and 13-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

While Applicant has amended the claims to read "the gasoline motor fuel", there is no antecedent support in claims 1 and 10 for gasoline per se. The claims are directed to "an ether containing gasoline motor fuel additive composition" and there is no gasoline present in these claims.

To overcome the rejection under 35 U.S.C. 112, second paragraph, Applicant should delete the term “the” as it appears before the terms “gasoline motor fuel”.

Applicant expresses concern as to why the examiner does not use the issued patent number 6,488,723 for the Publication 20020023383.

The present examiner inherited this application from a former examiner. The previous examiner relied upon the publication document to reject the claims. Since the publication document is a valid reference, the present examiner did not feel compelled to reject the claims over the issued patent.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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3. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nelson (US 20020023383).

Nelson discloses a motor fuel additive composition comprising (a) a fuel conditioner component and (b) a detergent component. The fuel conditioner (a) comprises (i) from 2 to 50 percent by weight of a polar oxygenated hydrocarbon compound and (ii) from about 2 to about 50 percent by weight of an oxygenated compatibilizing agent. The detergent component (b) is selected from the group consisting of (i) a reaction product of a substituted hydrocarbon (A) and an amino compound (B), and (ii) a polybutylamine or polyisobutylamine (see abstract). The polar oxygenated hydrocarbon has an average molecular weight of from about 200 to about 500, and acid number of about 25 to 175, and a saponification number of about 75 to about 200 (paragraph 50). The oxygenated compatibilizing agent has a solubility parameter of from about 7.0 to about 14.0 and moderate to strong hydrogen-bonding capacity (paragraphs 51-52). The hydrocarbon compound (A) of the detergent component is a substituted hydrocarbon of the formula R_1-X wherein R_1 is a hydrocarbyl radical having a molecular weight in the range of about 150 to 10,000 and X is selected from the group consisting of halogens, succinic anhydride and succinic dibasic acid (paragraphs 15-19). The amino compound (B) is of the formula $H-(NH-(A)_m)_n-Y-R_2$ wherein Y, A, m, n, and R_2 are identical to those in the instant claim 10 (paragraphs 20-22). The polybutylamine or polyisobutylamine is identical to that in instant claim 10 (paragraphs 23-25). Further, the composition includes other additives such as methyl tertiary butyl ether (MTBE) and ethyl tertiary butyl ether (ETBE), alcohols such as

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methanol or ethanol, and additives that are “typically employed in motor fuels” such as common anti-knock additives (paragraph 58). Nelson also discloses examples wherein the additive composition was added to a base fuel in amounts between 100 ppm and 500 ppm (examples 4, 5, 7 and 9).

Nelson teaches the limitations of the claims other than exemplifying a composition wherein the ethers are present. However, it would have been obvious to include one of the ethers because Nelson teaches that the ethers may be included in the composition.

The proportions of the ethers are not disclosed. However, It would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the proportions of the ethers through routine experimentation for the best results. As to the optimization of results, a patent will not be granted based upon the optimization of result effective variables when the optimization is obtained through routine experimentation unless there is a showing of unexpected results which properly rebuts the *prima facie* case of obviousness. See *In re Boesch*, 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA 1980). See also *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936-37 (Fed. Cir. 1990), and *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Nelson is silent with respect to the order in which the additives are added to the fuel; however, selection of any order of mixing ingredients is *prima facie* obvious.

4. Applicant argues that one of the keys to Applicant’s invention is the ability to add the ether octane number enhancing additive, in lower dosing levels, to the additive

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package instead of to the gasoline motor fuel prior to the additive package being added to the gasoline.

5. Applicant argues that because of the unpredictable nature of organic compositions that adding the ether to the additive package before mixing into the fuel is not obvious. Applicant argues that Nelson fails to disclose, teach or suggest how to modify the reference to provide for reducing the amount of ethers required to obtain improved engine performance and ORI reduction by addition of ethers to the additive package.

6. Applicant has merely taken a conventional octane improver and added it to his fuel additive package. Nelson teaches that the ethers may be present in the fuel and he sets forth that conventional antiknock components (octane improvers) may be incorporated into the fuel. Applicant has shown no unexpected results with the addition of the ethers to the additive package as the additive package relates to the performance of the fuels in an internal combustion engine. Furthermore, Nelson teaches that even in the absence of the ethers that the engine performance improves and ORI reduction occurs. Therefore, the addition of the ether to the fuel composition would perform its attendant function. Since ORI is controlled by the addition of the detergent and fuel conditioner, the skilled artisan would not expect any additive amount of ether to negatively affect the fuel's performance.

7. Applicant argues that Nelson discusses the ORI and CCD problems that occur because of the introduction of gasoline additives and that no solution to these problems was even known or thought possible before the invention claimed in Nelson.

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8. The examiner's statement that the addition of ether gasoline additives does not imply that the addition of other gasoline additives would not negatively effect the fuel's performance. However, it is clear from Nelson and those skilled in the art would recognize that an octane improving ether would not cause the problems discussed above. If Nelson thought that ether compounds contributed to ORI and CCD problems why would he explicitly teach that the fuel may contain ethers such as MTBE and ETBE?

9. This is a continuation of applicant's earlier Application No. 10/709863. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cephia D. Toomer whose telephone number is 571-272-1126. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Cephia D. Toomer/
Primary Examiner
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